

## **803 KAR 2:420. Blasting and use of explosives.**

RELATES TO: KRS 338.051(3), 338.061, 29 C.F.R. 1926

STATUTORY AUTHORITY: KRS 338.051(3), 338.061, 29 C.F.R. 1926

NECESSITY, FUNCTION, AND CONFORMITY: KRS 338.051 and 338.061 authorize the Kentucky Occupational Safety and Health Standards Board to adopt and promulgate occupational safety and health administrative regulations. KRS 338.061(2) provides that the board may incorporate by reference established federal standards and national consensus standards. The following administrative regulation contains those standards to be enforced by the Division of Occupational Safety and Health Compliance in the area of construction.

Section 1. Precautions to be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, lightning, adjacent powerlines dust storms, or other sources of extraneous electricity.

(1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.900(k)(3)(i).

(a) 1926.900(k)(3)(i), The prominent display of adequate signs warning against the use of mobile radio transmitters, on all roads within 1,000 feet of blasting operations. Whenever adherence to this 1,000 foot distance would create an operational handicap, a competent person shall be consulted to evaluate the particular situation, and alternative provisions may be made which are adequately designed to prevent premature firing of electric blasting caps. The competent person may be a blaster certified by the Kentucky Department of Mines and Minerals with a working knowledge of mobile radio transmission and receiving hazards as related to use of electric blasting cap firing systems and designated by the employer. A description of any alternative shall be in writing describing the unusual conditions at the site and the alternative measure used. The description shall be maintained at the construction site during the duration of the work and shall be available for inspection by representatives of the Secretary, Kentucky Labor Cabinet.

(b) 1926.900(k)(4), Ensuring that mobile radio transmitters which are less than 100 feet away from electric blasting caps, in other than original containers, shall be deenergized, and have the radio transmission circuit or vehicle effectively locked against transmitter usage.

(2) 29 C.F.R. 1926.900(k)(3)(i) is amended to read: The prominent display of adequate signs warning against the use of mobile radio transmitters, on all roads within 1,000 feet of blasting operations. Whenever adherence to this 1,000 foot distance would create an operational handicap, a competent person shall be consulted to evaluate the particular situation, and alternative provisions may be made which are adequately designed to prevent premature firing of electric blasting caps. The competent person may be a blaster certified by the Kentucky Department of Mines and Minerals with a working knowledge of mobile radio transmission and receiving hazards as related to use of electric blasting cap firing systems and designated by the employer. A description of any alternative shall be in writing describing the unusual conditions at the site and the alternative measure used. The description shall be maintained at the construction site during the duration of the work and shall be available for inspection by representatives of the Secretary, Kentucky Labor Cabinet.

(3) The language in subsection (4) of this section shall apply in lieu of 29 C.F.R. 1926.900(k)(4).

(4) 29 C.F.R. 1926.900(k)(4) is amended to read: Ensuring that mobile radio transmitters which are less than 100 feet away from electric blasting caps, in other than original containers, shall be deenergized, and have the radio transmission circuit or vehicle effectively locked against transmitter usage.

Section 2. Use of Black Powder. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.900(p).

(2) 29 C.F.R. 1926.900(p) is amended to read: The use of black powder shall be prohibited except when a desired result cannot be obtained with another type of explosive, such as in quarrying certain types of dimension stone.

Section 3. Electric Blast Initiation. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.900(r).

(2) 29 C.F.R. 1926.900(r) is amended to read: All electric blasts shall be fired with an electric blasting machine or properly designed electric power source, and in accordance with the provisions of subsection.906(a) and (r).

Section 4. Transporting of Explosives or Blasting Agents. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.902(d).

(2) 29 C.F.R. 1926.902(d) is amended to read: Explosives or blasting agents shall be transported in separate vehicles unless the detonators are packaged in specified containers and transported all in compliance with DOT Regulation 49 C.F.R. 177.835(g).

Section 5. Underground Transportation of Explosives. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.903(o).

(2) 29 C.F.R. 1926.903(o) is deleted.

Section 6. Loading of Explosives or Blasting Agents. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.905(h).

(2) 29 C.F.R. 1926.905(h) is amended to read: Machines and all tools not used for loading explosives into the boreholes shall be removed from the immediate location of holes before explosives are delivered. Equipment shall not be operated within fifty (50) feet of a loaded hole except that which is required when the containment of the blast is necessary to prevent flyrock. When equipment or machinery is used to place mats, overburden, or protective material on the shot area, a competent person (who may be a blaster certified by the Kentucky Department of Mines and Minerals) shall implement adequate precautions to protect the lead wires or initiating systems such as protecting the components from direct contact with materials which sever, damage, impact, or conduct stray currents to the explosives system. This would include preventing the dragging of blasting mats or running over the holes and systems with the equipment used.

(3) The language in subsection (4) of this section shall apply in lieu of 29 C.F.R. 1926.905(i).

(4) 1926.905(i) is amended to read: No activity of any nature other than that which is required for loading holes with explosives and preparation required for initiating the blast and containment of flyrock from the blast shall be permitted in a blast area.

(5) The language in subsection (6) of this section shall apply in lieu of 29 C.F.R. 1926.905(k).

(6) 29 C.F.R. 1926.905(k), Holes shall be inspected prior to loading to determine depth and conditions. When necessary to drill a hole in proximity to a charged or misfired hole, the distance between these two (2) holes must be greater than the depth being drilled and precautions taken to ensure the integrity of any adjacent charged hole or misfired hole. This distance must be determined by a competent person (who may be a blaster certified by the Kentucky Department of Mines and Minerals) in order to insure that there is no danger of intersecting the charged or misfired hole.

(7) The language in subsection (8) of this section shall apply in lieu of 29 C.F.R. 1926.905(n).

(8) 29 C.F.R. 1926.905(n) is amended to read: In blasting, explosives in Fume Class I, as set forth by the Institute of the Makers of Explosives, shall be used; however, Fume Class I explosives

are not required when adequate ventilation is provided and the workings are abandoned for a period of time sufficient to allow dissipation of all fumes.

Section 7. Initiation of Explosive Charges - Electric Blasting. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.906(p).

(2) 29 C.F.R. 1926.906(p) is amended to read: The blaster shall be in charge of the blasting machines, and no other person shall connect the leading wires to the machine except under the immediate physical and visual supervision of the blaster.

(3) The language in subsection (4) of this section shall apply in lieu of 29 C.F.R. 1926.906(q).

(4) 29 C.F.R. 1926.906(q) is amended to read: Blasters, when testing circuits to charged holes, shall use only blasting galvanometers equipped with a silver chloride cell especially designed for this purpose or an instrument designed solely for use in blasting, which incorporates a current-limiting device into its circuitry. No instrument capable of producing over fifty (50) milliamps on direct short circuit shall be used.

(5) The language in subsection (6) of this section shall apply in lieu of 29 C.F.R. 1926.906(s).

(6) 29 C.F.R. 1926.906(s) is amended to read: Leading wires shall remain shorted and not be connected to the blasting machine or other source of current until the charge is to be fired.

Section 8. Use of Safety Fuse. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.907(a).

(2) 29 C.F.R. 1926.907(a) is amended to read: The use of a fuse that has been hammered or injured in any way shall be forbidden.

Section 9. Inspection After Blasting. (1) The language in subsection (2) of this section shall apply in lieu of 29 C.F.R. 1926.910(o).

(2) 29 C.F.R. 1926.910(b) is amended to read: Sufficient time shall be allowed, not less than fifteen (15) minutes in tunnels, for the smoke and fumes to leave the blasted area before returning to the shot. An inspection of the area and the surrounding rubble shall be made by the blaster to determine if all charges have been exploded before employees are allowed to return to the operation.

Section 10. Incorporation by Reference (1) The following material is incorporated by reference:

(a) The material in subparagraphs 1 through 14 of this paragraph, the Code of Federal Regulations, published by the Office of the Federal Register, National Archives and Records Services, General Services Administration, revised as of July 1, 1997, is incorporated by reference:

1. 29 C.F.R. 1926.900 through 1926.900(k)(2);
2. 29 C.F.R. 1926.900(k)(3)(ii);
3. 29 C.F.R. 1926.900(k)(5) through 1926.900(o);
4. 29 C.F.R. 1926.900(q);
5. 29 C.F.R. 1926.900(s) through 1926.902(c);
6. 29 C.F.R. 1926.902(e) through 1926.903(d);
7. 29 C.F.R. 1926.903(f) through 1926.905(g);
8. 29 C.F.R. 1926.905(j);
9. 29 C.F.R. 1926.905(l) through 1926.905(m);
10. 29 C.F.R. 1926.905(o) through 1926.906(o);
11. 29 C.F.R. 1926.906(r);
12. 29 C.F.R. 1926.906(t);
13. 29 C.F.R. 1926.907(b) through 1926.910(a);
14. 29 C.F.R. 1926.910(c) through 1926.914.

(b) The revision to 29 C.F.R. 1926.906, "Initiation of Explosive Charges - Electric Blasting", as published in the Federal Register, Volume 63, Number 117, June 18, 1998, is incorporated by reference.

(2) This material may be inspected and copied at: Kentucky Labor Cabinet, Division of Occupational Safety and Health Education and Training, U.S. 127 South, Frankfort, Kentucky 40601. Office hours are 8 a.m. - 4:30 p.m. (ET), Monday through Friday. (16 Ky.R. 717; eff. 12-15-89; Am. 20 Ky.R. 2723; eff. 5-11-94; 25 Ky.R. 2461; eff. 6-16-99; TAm eff. 8-9-2007; TAm eff. 9-8-2011.)